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ABSTRACT

Reasons for the increased demand for second language education and implications for language education are discussed. After an introduction that focuses on the changing world of work, including global competition and telecommunication advances, it is noted that foreign language skills are becoming essential career skills. Six factors are offered that explain why the world will not be "English only" and why language skills are important. These include the following: demographics; the shifting economic power of developing countries; education's silent revolution, in which postsecondary enrollment is growing dramatically; the relative importance of language skills as public policy, with language issues perceived to be matters of national identity; technology and the falling cost of translation; and globalizing organizations. Indirect evidence of growing demand for language skills is seen from business, government, and education leaders. Seven points that have implications for language education are addressed: more people need foreign language skills; higher levels of proficiency are needed; U.S. language education programs are scattered with varying offerings and little articulation between them; instructional technology is not widely used in language instruction; more direct contact with foreign cultures is needed; and curricular reforms are needed to provide the foundation and sustain other changes. (LB)

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The Changing Structure of Demand for Language Education

And Its Impact in the Foreign Language Classroom

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Conference on Bridging Theory and Practice
In The Foreign Language Classroom
Loyala College
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The Changing Structure of Demand For Language Education And Its Impact in the Foreign Language Classroom

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ABSTRACT:

International activities are rapidly becoming more prominent in our lives. But is this increasing the demand for second language skills? This article outlines why demand for second language education will grow rapidly and notes implications for language education.

I. Introduction:

The world of work is changing. Over your morning coffee you can fax to Frankfurt, gab with Gabon, check your electronic mail in Moscow, videoconference with your broker in Tokyo and use your personal computer to telecommute to nearly anywhere you wish.

When work is done, turn on a TV, put on a VCR tape, or read a newspaper--in almost any major language. And the same satellite technology that allowed Wall Street Journal and USA Today to become "national" newspapers also allows Japan's largest newspaper Yomiuri Shibun to serve as a daily US paper for more than 10,000 US readers. In a world of VCRs and satellite dishes, whatever language is spoken locally, you can practice any language you wish.

A hundred years ago Americans studied foreign languages to gain perspective and to become knowledgeable of the roots of their language and culture. Classical Latin met these needs for most students. A few students who aimed to run the nation's affairs studied languages such as German or French to appreciate world art, to stay up with developments in chemistry, to read the labels on wine bottles, and to assist in finding 'le bon mot' at the club. Other languages, such as Spanish, Polish, Italian, Japanese, and modern Greek were spoken in homes and immigrant barrios, and sometimes in neighborhood schools, but were rarely useful in the broader economy. Within the space of a generation or two the immigrants' children were apt not only to learn English, but also to lose their "foreign language" skills. Educators might call for knowledge of languages (often classical Latin and Greek) as essential in education--but in practice a

major effect was to screen most people out of access to higher education and other opporuntities. And in fact, the wide oceans and the broad continent ensured that little more than English was needed by most Americans most of the time.

Today, business deals, researchers and relatives on the other side of the planet are only a phone call away. Tourism, an industry which scarcely existed a century ago, has become the planet´s largest industry--and it will grow even more rapidly as income, leisure, and education increase. A business´s foreign operations were often heard from once a year, when their profit and loss statements provided a "Christmas surprise" for the firm. Today, the research, development, finance, and marketing of many firms are globally distributed as part of the firm´s globally integrated competitive strategy. Even small local firms see international opportunities and confront international competition. Once only expatriate managers and perhaps the CEO needed to communicate internationally. Today, ready communication and decentralized operation is multiplying international points of contact. The manager in Rio (or the shop stewart) is only a call away from the assembly line in Detroit or world headquarters. Old hierarchies of translation become competitive disadvantage in today´s world where information and money flow across national borders with the speed of electrons.

As a result, foreign language skills are becoming essential career skills for many more people. For the nation, foreign language skills are a key resource that allow the nation to compete. This article identifies forces shaping this change, and briefly notes some implications for language instruction.

II. The Big Change

A lot has been said since the first trans-Atlantic cable was laid in 1866, permitting telegraph messages to be sent and complementing slower surface mail. By 1956 such copper cables had 89 circuits; by 1991 fiber optic cables carried 75,000 (and cables scheduled to go into service in 1996 will be able to carry 600,000 circuits). Satellite capacity is also growing. In 1965 the Intelsat I communications satellite held 240 circuits; in 1989 Intelsat VI held 120,000 circuits. Projects already underway ensure that this capacity will grow many fold by the end of the decade. For example, a single communication cable now connects Japan and the US. Three more will be added by 1993, adding 210,000 new lines between the US and Asia. By 1996 a new high capacity cable carrying 600,000 calls will be switched on. Satellites augment this. Intelsat now has about 51,000 telephone grade lines providing communication for the Pacific Rim; by 1995 this will increase to about 345,000. Deregulation--often spurred by international competition and agreements--joins increased supply to help push prices down.

Competitition is joining technology to push prices down. Domestic phone companies are among the largest firms in almost every country in the world. While most have grown as monopolies, over the past decade many countries ave broken up their national monopoly. Even in countries that have been slower to introduce competition to telecommunications, international pressures are adding weight to the forces for change. For example, a 1991 Economist magazine survey of developments in telecommunications found that differences in national rates charged for international calls were costing the U.S. up to 3 billion more than they receive for international calls--adding to the national deficit. Such telecommunication issues have been high on the agenda in trade negotitations with Japan, Germany, and other nations. The fact that technology already allows large firms to

provide their own transnational communication links further undermine efforts at national monopoly and pricing in telecommunations. As telecommunications becomes increasingly important in economic competitiveness, these pressures to introduce competitive pricing for international telecommunications will grow. These forces suggest that the declining cost of of distance communications is not only desirable, it is unstoppable.

The decline in communication costs is remarkable. An international call costs 5% of what it cost 35 years ago in inflation adjusted terms. As a result, the volume of international calls originating in the U.S. grew more than 125 fold between 1960 and 1985. International phone traffic is now doubling every four years--and the rate is increasing.

According to Arthur C. Clark, writer and father of the geostationary telecommunications satellite, increasingly all calls are seen as equal, and the very notion of a "long distance call" is likely to vanish by early in the next decade. As calling becomes cheaper, more common, and bundled with fax, electronic mail, video and other communications, this is not only leading to more spur of the moment calls by friends and family, it is also changing the way the world plays and earns a living. While talk may always have been cheap, technology is making it cheaper--and the telephone system has become the most revolutionary device of the late 20th Century.

The changes in transportation--often based on modest incremental changes in older technology--are hardly less revolutionary. The jet plane helped make tourism the world's largest industry. The maturing of the aviation industry has also made possible a rapidly growing air freight industry. Once a carrier of Christmas packages and tokens for friends abroad, today's air freight industry has made possible global corporate strategies based on speed and flexibility, flying components

across continents, making geography increasingly irrelevant. For example, according to the US Department of Commerce figures, excluding envelopes and non-commercial packages, approximately $32.3 billion worth of goods were shipped by air freight between Japan the the US in 1990. That figure represents nearly 24% of the trade between the two countries. That´s not bad for an industry that scarcely existed a couple of decades ago. Similarly, maturing of container technology allow point to point shipment by sea and land, with satellite tracking systems keeping tabs on the container´s movements. This has sped up transportation and made it more reliable--and has often cut costs. For example, modern container ships operate with approximately half the crew of more traditional vessels. In brief, international communication and communication have become faster, more reliable, and cheaper.

While there are still many obstacles, governmental barriers to international trade have been dramatically reduced since the General Agreement on Trade and Tariffs was first negotiated in 1947. Regional agreements such as the European Community, have cut local barriers lower still. The result is that the growth of trade among nations has far outpaced growth at home, growing at 6.5% annually in inflation adjusted terms versus only 4.5% since the first GATT was signed. During this period the proportion of imports and exports has more than doubled in most OECD countries.

In 1960 only a tenth of US GNP was tied to trade. Today, almost 70% of US goods and services compete with foreign products, a third of US corporate profits are generated by international trade, and four out of every five new American jobs are tied to international trade. Immigration accounted for almost one fifth of US population growth during the 1980s. By 1990 foreign banks held 25% of the bank loans to businesses in the US. By 1990 more than 14% of the doctorates awarded in the US went to foreign students--and the proportion rises to half in

several key fields. The number of international tourists in the US has grown sixfold since 1970, and is likely to grow more rapidly in the future. Even in the Great Plains, grain silo operators consider learning Russian or Chinese to better sell their grain, and forest rangers, highway patrols and teachers find themselves confronted with tourists and immigrants who don't speak English.

In sum, the rapidly growing volume of international transactions--and the escalating speed at which these transactions take place--have already transformed the way we make a living. Increasingly all firms--even small firms--must think globally, and act locally. But what does it take to make a deal in this fast paced global village?

III. Why The World Will Not Be "English Only": Six Factors Shaping the Demand for Foreign Language Skills

A. English Only?

Some argue that these changes are making languages other than English increasingly irrelevant. For example, John Naisbitt, author of Megatrends made the following response in an interview regarding these trends and their consequences for Americans:

> Q: What will people talk to each other in this single-world market?
> A: In English. It's the official languge of the Information Age. Computers communicate in English. By the year 2000 there will probably be 1.5 billion English speakers. English is what over 80% of the Berlitz students take all over the world. When the Japanese do deals in Europe, they do them in English. Akira Nambara of the Bank of Japan told us that 'broken English' is the international language," (Naisbett, p. 43).

There is no doubt that English is "big". 44 countries have English as their official language (compared to 27 for French and 20 for Spanish and 1 for Japanese). One study of scientific citations found that 85% of the items cited in scientific research were in English (and that 42% of the cited items were by US authors) (Garfield and Welljams-Dorof in Moore and Lambert). The U.S. continues to lead Europe and Japan combined in the number of Nobel Prizes earned since World War II. While there are twice as many speakers of Mandarin Chinse (750 million) as English (with 350 million speaking Engish as a first language), 600 million speak English as a second or third languge, and the number is rapidly growing. There are more students of English in China than there are people in the U.S. At present, for every native speaker of English there are two nonnative. Estimates of the number of English speakers ranges from 800 million to 2 billion.

Like Latin in the early Renaissance, English is the de facto "global" language. This reflects the important international roles of England and the US have played historically. It also reflects the relative simplicity of learning English and its openess to incorporation of foreign terms and concepts (from "pajamas" to "Los Angeles"). The large size of the United States and the broad international English speaking audience create a broad potential audience and economies of scale that have helped make English language entertainments and products the core of our evolving world culture. And as the number of nations active in world trade grows, the role of English as an official language is reinforced by the efficiencies gained by using a single language. Today. there are few places on the planet where one cannot survive speaking only English. As an executive in a U.S. computer firm said, "If people abroad are serious about doing business with you, they will speak English." (Korbin, p. 30).

For those who speak English as a native language, this easy

access to English reduces the urgency of learning another language. For native speakers of English, the cost and effort required to develop and sustain second language skills would, it is sometimes argued, be better invested in training engineers, film makers, and hotel managers. And, it is sometimes argued, there are so many languages it is not clear what additional languages English speakers should learn. Why read it in the original when what matters will be translated into English?

These factors of scale and efficiency guarantee that the role of English will grow in absolute terms. However, this does not mean that our world will be English-only. Let us look at the forces guaranteeing a more complex equilibrium of languages--forces raising the importance of foreign language skills.

B. Why The World Will Not Be "English Only".

> "Although Hewlett-Packard Co. has long been a model world company, it used to delay introduction of certain products outside the U.S. by six to nine months.... But in Asia, HP made the mistake of delaying production of software and manuals in local languages and was beaten badly by competitors. So when it came time to introduce a new line of graphics terminals in 18 languages, including Japanese, in the fall of 1989, HP rolled out the equipment and documentation in 15 different languages simultaneously, including Japanese and Chinese."
> (Business Week, May 14, 1990, p. 102.

At least six fundamental and interrelated trends are restructuring the demand for language skills (and changing the mix of language skills needed). Let us look at each.

1. DEMOGRAPHICS

First, the proportion of the world's population that speaks English as a first language is rapidly falling. Today, North America and Europe account for less than one out of seven people

on the planet. Developing nations will account for more than 80% of the world's population growth during the next decade. This means that even if Naisbett's "optimistic" scenario that one and a half billion people will speak English by the year 2000 proves correct, this will still leave three out of four people on the plant who do not speak English. And many of the people who do speak English will not be proficient enough to use it in high stakes transactions, or will not be willing to cede Engish the role of language of choice in research, negotiations, and commerce. Government policies and competitive pressures will help ensure that these voices are heard.

2. SHIFTING ECONOMIC POWER

Second, markets are growing faster in areas where English is not spoken as a first language. This is due to development as well as population growth. Per capita consumption in developing nations went up by almost 70% between 1965 and 1985. The impact can be substantial. The World Bank (1989) reports that over the past two decades Indonesia has reduced the proportion of its citizens living in poverty from 60% to less than 20%. Even during the 1980's, "lost decade" of economic growth in much of the Third World, developing country gross domestic product growth averaged 4.3%, compared to 2.9% in OECD nations. Growth rates were far higher in some countries, with the nations of South Asia averaging 5% and those of East Asia averaging 8.5%. Broader measures of well being, such as life expectancy, infant mortality, and education show even more significant improvements and provide the basis for rapid future development.

For the moment, North America and Western Europe are still the markets that matter. They generate over three quarters of the world product (and this proportion has remained relatively stable for over two decades). However, other regions are growing faster--and many are positioned to rapidly increase in importance

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For the moment, North America and Western Europe are still the markets that matter. They generate over three quarters of the world product (and this proportion has remained relatively stable for over two decades). However, other regions are growing faster--and many are positioned to rapidly increase in importance during the careers of the students we are now training in our schools. The end of communism in the Soviet Bloc amplifies this potential for growth outside English-speaking nations. The economic success of nations such as Korea and Singapore which have aggressively participated in world markets suggests that the increasing emphasis on this development model in most nations will further augment the power of consumers in nations that do not speak English.

3. EDUCATION´S SILENT REVOLUTION

The proportion of the world´s population enrolled in secondary and postsecondary education has roughly doubled since 1965. In some countries the increase is greater. For example, the

proportion of Mexico's population enrolled in postsecondary education grew from 4% in 1965 to 16% in 1986. In South Korea, the increase was from 7% to 33%. Students in Taiwan are now roughly twice as likely as those in Britain to go on to the university. In the U.S. roughly half of graduating high school students go on to obtain some postsecondary training. Enrollment in postsecondary education in most OECD countries has doubled or tripled in recent decades.

Skilled work forces have become the crucial factor in international competition. Increasingly, corporate stategies are seeking educated workers whereever they may be. For example, US insurance forms are processed by white collar workers in Ireland, shoppers' coupons are processed in Barbados, American computer firms have computer programs written in India and corporate research and development are increasingly distributed among researchers in many countries.

With education and the increased discretionary income and leisure that often come with it, tastes and priorities shift (Inglehart). Increased concern with quality of life and identity issues grow, as does interest and ability to sample foreign items, from foreign restaurants to foreign travel. Studies from Civic Culture to Political Action have clearly documented that educated individuals are also more likely to be politically active (cf. Barnes et al.). As "green field" investments mature, local employees are increasingly likely to have the skills and experience needed to manage local plants--and firms have strong competitive and political incentives to give them the opportunity.

What does this mean for language skills? First, growing knowledge, leisure, and discretionary income will stimulate international travel and interest in things foreign--in both English speaking and non-English speaking nations. Second, growing ability of local labor to compete (and the growing

competition among firms) will make locals increasingly likely to question commands that come in Engish-only.

These same trends also make work by non-English language researchers increasingly likely to be state of the art and makes activity by firms outside the US increasingly likely to be important in product innovations. The same study that found high levels of publication and citation for English language scientific research also found non-English speakers more likely to publish and to cite non-English sources. This is already showing up: by 1989 nearly half the patents issued in the United States went to foreigners. While the use of English is becoming more wide spread, there is no sign of other major languages fading away. As the Japanese businessman said, "The most important language in the world is the language of my customer". You can always buy in English, but in selling, the customer´s language is king.

In brief, increasing levels of world education are changing tastes, priorities, and ability to compete. An English language monopoly is increasingly unlikely in such a contentious crowd.

4. GOVERNMENTS AND LANGUAGES

As other barriers to commerce fall, the relative importance of language grows. As The Economist noted:

> "To boast an international language is like having a reserve currency: it brings a country short-term ease and long term grief. In colonial days, it was a bonus to have a lingo on which the sun never set. It strengthened the grip of the coloniser on the colonised, helping him sell his unlovely goods, with unchanged instruction-books, in his dominions. What he said loudly in English mattered. What they replied softly in Hindi didn't. But in these days of frightful commercial rivalry, it is what the customer says that counts. You make your sales-pitch in English. The buyers discuss it politely in Korean. This guy is sleep-walking: let's take him to the cleaners, they murmur while you beam at them encouragingly."
> (Economist, August 24, 1991, p. 16)

Demand for language skills is often stimulated and sustained by public policy. Since the rise of the nation state--with their official grammar, codifications of laws, promotion of national artists, and so on--governments have been deeply involved in language policy. The rise of universal public education--in the national language--reinforced these links of state and language (cf. Deutsch, Tilly).

Language policy is not new, but the context has changed. Clearly interest in defending local culture does not fade with affluence. For example, California´s "English only" law and Quebec´s laws giving special status to French are both in response to wide spread public pressures generated by development in the global economy. Germany´s interest in increasing the international role of the German language in the European Community and beyond and the European Community´s 1989 regulations requiring that by 1993 half the programing in member nations be of European origin suggest that cultural politics (including language policy) will be high on the agenda of the 1990s and beyond. Growing international integration will increase language insecurity, even in English-speaking nations.

English-only is not needed to do well. Nations such as Japan, Italy, and Korea thrived in the past decade with many citizens who could converse in English as a second (or third or fourth) language, but with a national language rarely spoken beyond their borders. Such assymetries in language skills shift competitive power.

In our own era of faxes and satellite dishes, when currency controls, tariffs, and other traditional policy tools are less available, language policy--particularly promotion of the national language, and encouraging citizen proficiency in key international languages--becomes more important. Language monopolies are increasingly difficult and counterproductive to

enforce--but promotion of the national language is at the same time growing in importance. The payoff is identity--a commodity likely to be in great demand during the period of changes that are coming our way.

Like the flag of Panama on ships, English is likely to remain the language of convenience for international affairs among language areas. However, a distinction between "official language", "working language" and "national language" is helpful in analyzing the roles of language. The role of English as an official language--particularly in transactions between language areas (such as Japanese deals with Saudi firms) are likely to be in English as an official record, primarily for reasons of convenience. However, global industrialization and emergence of major trade blocks not dominated by English-speaking nations are likely to lead to a new assertiveness by speakers of other languages. When language issues are perceived to be matters of national identity--as in education of children and routine transactions within the nation--nationalist demands for use of the "common national language" are likely (Dion). The experience of Switzerland, Belgium, Canada, and other nations suggest that there is little evidence that growing economic integration is likely to lead to a single common language. In this regard, English has about as much chance as Latin or Esperanto of obtaining monopoly status in our emerging global economy.

In brief, incentives for nationalists to utilize language policy are strong and growing. English is a first among equals, but English is not enough.

5. TECHNOLOGY AND THE FALLING COST OF TRANSLATION

> "You can buy systems that work on PCs at home or abroad which are written not only in English, but in many other languages to accomodate your local managers overseas. And when that information is transmitted back to the US, it will be in English and in dollars"
> Robin Morris, CEO of Systems Union Inc., an international accounting software firm. [cited in Quinn]

Technology is catching up with the translator. Technology is quickly cutting the cost and delay involved in translation. This lowers the barriers to use of multiple languages in transnational transactions.

For example, at London´s Heathrow airport, international visitors can use touch-sensitive computer screens to obtain travel and lodging information in major world languages. The need for rote memorization of foreign vocabularly is falling as pocket "electronic dictionaries" that can handle a dozen languages are carried by undergraduates and traveling salespersons. Computer translations (still given a final polish by humans) have become common place in international organizations. Translation programs are available for personal computers. While the quality of these translations is often lamentable, the technology is quickly evolving. More is on the horizon. For example, "translating phones" are being developed that will allow "automatic translation" from one language into another.

Once, technology boosted the role of English because computers were unable to handle Chinese, Japanese, or other pictograph languages. Moreover, since the US led the world in computer development and utilization, the major computer programs and their documentation were usually written in English by American firms. As Naisbett put it, "computers communicate in English". However, increasingly computer technologies can handle any language and any notation.

In sum, by increasing contacts among language areas and by speeding up and cutting the cost of translation, a pluralism of languages is encouraged in the world economy. Scientific papers may or may not continue to appear primarily in English --but the growing significance of research conducted outside the English language areas and the growing simplicity of providing "instant translations" of documents indicates that by the end of the current decade an international pluralism will grow. Materials will be available in English--but also in Korean, French, or any other desired language. With these emerging technologies, the "official language" of transactions and research comes down to a matter of local politics rather than global efficiency.

6. GLOBALIZING ORGANIZATIONS

These changes in international markets, goverment policy, and technology have transformed corporate strategies. Once corporations were pyramids, with a CEO perched at the top, and managers and employees below, each compartementalized to pursue some part of the organization's grand strategy. Information slowly moved from assembly line and sales representatives up through the layers of management to get a decision at the top. Foreign operations were usually loosely linked, often doing little more than stretching product life cycles of goods that had already been surpassed in the home market. Since foreign sales usually accounted for a miniscule part of the firm's profits (and competition was often weak in those isolated foreign markets), US managers had little need to hone foreign language skills. Foreign language skills could be picked up when an executive was sent abroad for an extended period, and a coterie of local managers would be able to translate what they chose for him.

Technology and competition changed this. Speed and information have become critical in today's markets where windows

of opportunity open and close quickly, with new products that can become obsolete within months. Once factories replaced equipment only after it wore out, about every 20 years or so. Today, many industries revamp 25% to 30% of their production processes every year. In competitive markets, the customer is king--and timely information about customer responses is a key to moving from a one time sale to a profitable ongoing customer relation.

Decentralization, often with reduction of middle management, is the hallmark of today's firm. Foreign operations are no longer remote and semiautonomous. A manager can pick up his phone or fax or computer to instantly contact managers at any plant anywhere in the firm as part of the firm's integrated global strategy.

What does this mean for language skills? First, even local firms find themselves in competition with foreign producers--and international opportunities beckon. A mom and pop operation in Des Moines, Iowa can market and provide customer support through toll free international 800 numbers. Customers in Athens, Greece and Athens, Ohio are as near as the nearest telephone.

Second, larger firms too have become far more involved with international markets. Foreign earnings of US firms grew from 8.6% in 1957 to 26.9% in 1980. By 1980 at least 200 of the 500 largest firms generated at least 20% of their sales abroad, and over 60 generated over 40%. The number of US workers employed in manufacture for export doubled between 1972 and 1981 (Korbin) and continued to grow rapidly in the following decade.

The hallmarks of the new corporate strategy--speed, quality, flexibility--require elimination of bureaucracy, decentralization of decision making, and effective communication. While a global firm's official language may (or may not) be English, the increasing number of points in the organization where the firm interacts directly with international employees, suppliers, or customers make ability to get the job done--whatever the official

language--increasingly important. Efforts to enforce a language monopoly within the transnational firm creates rigidities and drag that undermine competitiveness. Small firms--often operating in emerging or highly competitive markets--are particularly likely to find that they need foreign language skills if they are to survive and thrive in today´s markets without borders. In sum, more people at more points in the transnational organization need effective language skills.

In sum, the volume and value of international transactions is growing, spurred on by evolving transportation and communication technologies. Six major factors (the changing global distribution of population, the relatively rapid economic growth in non-English language nations, growing levels of education, government language policy, technology, and corporate strategies) all indicate that there will be more interactions in more languages. Counterveiling forces, such as efficiencies gained through a single language (and isolationist forces within English speaking countries) are not powerful enough to overcome demographics, economics, and politics. While the international role of English will continue to grow, the ability to compete effectively in the new economy in "English only" will shrink. These effects will be powerfully felt during the careers of today´s students.

Several caveats are in order in seeking to assess this hypothesized relation. This process is non-linear and largely emergent. There are likely to be significant lags and cohort effects. Key variables, such as governmental and corporate policy are non-continuous. Moreover, the available data is often fragmentary and of poor quality. Hence historical data must be used with great caution and is of limited predictive power. Given these constraints, any detectable trend would have to be

rather robust. At this time I do not have adequate data to assess this hypothesized relation. However, the available information is consistent with the hypothesized relationship. Let us look.

III. IMPACT MEASURES.

Even if these trends are still largely emergent, "early warning indicators" such as policies, enrollments, and workforce outcomes should be reflecting these changes in demand. Are they?

There is considerable indirect evidence of growing demand for language skills. First, if the changes are as broad and significant as argued, we would expect business, governmental, and education leaders to urge strengthening foreign language education to meet emerging demands for language skills. This is occuring. In November 1979 the President's Commission on Foreign Languages and International Studies issued its final report, Strength Through Wisdom which pointed with alarm to the state of international education in the US. During the subsequent decade the Southern Governor's Association, the National Governors Association and others called for upgrading language education in the US. Among the objectives listed by the President and the Governors at the "National Education Summit" in Charlottesville was the objective of strengthening language instruction.

If these trends promise to be so powerful, concern should be shared by business and educators as well as public officials. There is evidence of these broader as well. For example, in 1990 the Coalition for the Advancement for Foreign Languages and International Studies (CAFLIS), made up of over 150 education and business organizations called for broad upgrading of language instruction.

Second, if these transformations are occurring, we would

expect to see existing institutions becoming more sensitive to foreign language issues--particularly those related to trade and competitiveness. There is some evidence of this. For example, in 1990 the College Board--reacting to criticism that it was failing to provide advanced placement tests in Asian foreign languages--announced that it would develop such tests. The establishment of a research and dissemination center by the U.S. Department of Education to deal with language education after Congressional and other input again suggests responsiveness.

We would also expect to find increasing institutionalization of advocacy for improved language education. The creation of the Joint National Committee for Languages in 1976 as an umbrella organization bringing together the broad foreign language education community and the opening of its Washington office in 1980 also point to growing institutionalization.

Third, these trends should be reflected not only in expressions of concern and increased institutionalization, but also in growing enrollments. This growth should be fueled by both policy changes (e.g. inclusion of foreign language requirements in the curriculum), but also by growing demand as students and their parents become aware of the career implications of language skills. Shifts in enrollment among languages (e.g. among "dead" classical languages, "minor" languages, and major languages of the international economy) may be useful in disentangling these effects.

This shift too is occurring. With the reaction to US involvement in the Vietnam War and with the student power movment, the number of language majors in the US dropped by more than half between 1967 and 1987. Only 7.8% of all US postsecondary students are enrolled in higher education language courses. Despite this context, over the past decade, increased emphasis on language skills has been accompanied by growing

enrollments in living languages as indicated by MLA surveys over the past decade. Roughly 80% of enrollments are in modern European languages. Enrollments in Japanese courses climbed 119% between 1978 and 1989, and have continued to climb. The picture for other less commonly taught languages is mixed (cf. Lambert, p. 55).

School reforms have often led to establishment of foreign language programs for secondary and sometimes primary students. A survey conducted by the Joint National Committee for Languages found that 30 states have instituted or increased foreign language requirements in the past ten years. There has been a 10% increase in foreign language enrollments during that period. The impact is just beginning to be felt. For example, the State of New York´s Action Plan to Improve Elementary and Secondary Education Results" includes a commitment to second language education for all students. Beginning with the class of 1994 all students will take at least two years of a second language prior to grade 9 and additional incentives for continuing language study are made in the form of requirements for the Regent´s Diploma. In California--which as as many students as the smallest 24 states combined, the Hughes-Hart Education Reform Act of 1983 mandates one year of foreign language study as an option to meet high school graduation requirements. California´s public universities have required at least two years of study of a single foreign language for admission and the State´s Board of Education has recommended that all high school students complete two years of study in a foreign languge. California´s enrollments in foreign languages grew by a third between 1981 and 1987--but only 14% of K-12 students were enrolled.

There has also been a relative and absolute decline in the number of students studying classical languages. The number of Latin language enrollments in the US declined 80% between 1962 and 1976, from 700,000 to 150,000. The number of Latin teachers

registered by the American Classical League fell from 6,000 to 3,000 during the same period. While there has been some rebound, Latin enrollments remain below levels three decades ago.

SAT TEST TAKERS:

	1987	1991
Studied 2 or more years FL:	80%	87%
Spanish:	54	58
French	32	30
Latin	10	9
German	8	7

These patterns of increasing enrollment in major languages of world commerce also show up in college admissions data. 87% of those taking the SAT college admissions test in 1991 reported having taken two or more years of a foreign language, primarily Spanish (58%) and French (30%). Latin had been taken by 9%. German by 7%. The proportion of students who studied other modern languages (including modern Hebrew, Italian, Russian, and other modern languages) rose from 7% in 1987 to 8% in 1991. Similarly, the study of world history by SAT takers has been growing by 1% yearly since 1987. The number of students studying Japanese grew four fold, from 11,506 in 1980 to 45,717 in 1990 according to the MLA.

To put that in perspective, when this century began most students with professional ambitions (and many without) studied Latin, which had been the "universal language" at the time of the Renaissance. By 1991 there were as many students studying Japanese, Russian, Italian and other "nontraditional" languages as studied Latin. Yet, serious questions about instructional priorities continue to be raised by the fact that there are more

students studying Latin than Japanese.

There are also serious questions about the level of proficiency acheived. US government agencies and business find that the typical graduate of a US foreign language program achieves very low levels of foreign language proficiency. Data from advanced placement tests hint at this: over 54,000 students took advanced placement tests in living foreign languages in 1991 for college credit. That is, less than 5% of students taking SAT and/or an Advanced Placement Test felt proficient enough to seek college credit for introductory level foreign language skills.

In sum, inputs ranging from policy statements to institutionalized advocacy of language education concerns to enrollments in foreign language education suggest that there is a growing concern with foreign language education in the U.S.

But what do we know about the demand for language skills in the work place? On the basis of available evidence, it would be easy (but misleading) to argue that there is no real sign of growing demand for foreign language skills in US business.

One element that could be interpreted as signaling declining demand for foreign language skills is the fact that there appears to have been a secular decline for over a decade in the number of Americans sent abroad for more than a year. Part of the reason is simple economics. The cost to a US employer of sending an executive to Britain averages $300,000 the first year. In other countries such as Japan, and for more senior executives, it could easily approach $1 million, (Moore & Lambert). At the same time, many of the international investments made since World War II are maturing, and even new "green field" investments are increasingly able to hire local nationals (who have often been trained in major US or European universities) to run local operations. In

addition, foreign governments frequently encourage or require the hiring of local nationals for local posts. That is, US employees, like US firms, are finding growing international competition.

Studies document this decline in the number of American expatriates. For example, Korbin found that despite the rapid growth of transnational business, half the firms interviewed said the number of American expatriates they used had declined over the previous decade (and only 23% reported an increase). Similarly, Strugatch reports that in 1991 only 20 of 549 companies surveyed by Michigan State University planned to fill overseas jobs with U.S. graduates that year--roughly the same 4% proportion as in the previous study three years before.

The lure of living and working abroad has often encouraged students to study foreign languages. But faced with the apparent decline in prospects for long term posting abroad, students preparing to enter careers could reasonably ask, "Is there any payoff for foreign language skills?"

There is substantial evidence that language skills do pay off in the workplace. The secular decline in the proportion of long term expatriate managers is consistent with the arguments posed in this paper: revolutions in transporation and communication as well as the increasing skill levels and demands for participation from abroad slash the demand for long term expatriate managers, even as they increase demand for international competencies and provide more opportunities for more people to use them within the United States and on shorter term assignments abroad.

Central to this argument is the hypothesis that "domestic" demand for langauge skills is growing--that is, that there is more than "a supply side experiment" (e.g. increased language requirements on campus) going on here. Again, there is little systematic data. However, the available evidence suggests that US business utilizes foreign languages at significant levels. A

broadly based survey of corporate managers by Dunhill Personnel Services found that 80% of the managers surveyed had studied foreign language--but only 25% said they were fluent (Fowler). While low, this is considerably above the level of foreign language proficiency in the general population.

The utilization of language skills may be more marked in larger firms that are more likely to participate directly in international trade. Korbin's study of large US firms found that 56% of the executives surveyed spoke at least one foreign language well enough to do business in that business, and 21% spoke two or more languages. For most, language competence appeared to have been gained during overseas assignments: nearly two thirds of those with experience abroad spoke at least two languages. Language skills appeared particularly important in some fields. Virtually all the bankers in the Korbin sample spoke at least one foreign language.

Foreign language skills alone are not enough to build a career. Studies by Fixman and others make it clear that hiring rarely occurs on the basis of language skills alone, and that formal organizational processes to recognize, support, and reward foreign languge skills are scarce. While language majors may find it tough to find a job (cf. Shine), students who combine language with other career specific skills--such as business, law, or engineeting--are faring well. That is why many business education programs have begun to emphasize foreign language and other international skills. An American Assembly of Collegiate Schools of Business study found that about 22% of their responding institutions offered majors in international business and an additional 17% offered minors and the number is growing (Lambert p. 134).

In sum, there appears to be a demand for language skills to do things--and less demand for language skills that can't be brought to bear on specific problems.

Since they provide much of the future leadership of corporations, the career paths of graduates of business programs specializing in international business should provide a leading indicator of how business is utilizing foreign language skills. A study of graduates from leading international business programs at Wharton, Monterey Institute, and University of South Carolina found that for the 89% of graduates posted in the US, 65% said foreign language training had been important in finding their first job, and a similar percentage said their employer considers the foreign language skills to help some (Lambert in Lambert and Moore). Half said foreign language skills had at least some relevance to the corporate reward system. Perhaps most importantly for present purposes, while 18% of the graduates said they didn't use their language skills, 45% said they used their foreign language skills frequently or all the time in the office and 32% cited its frequent or continual use in travel. 48% said that their foreign language competencies had stayed the same or improved; only 12% said their foreign language skills had declined greatly. This suggests that at least for graduates of these relatively elite programs foreign language skills are used and valued as graduates of these programs as they work in the U.S. While the survey shows weaknesses in corporate support of language skills--including limited opportunities to sustain and develop language skills and little explicit recognition of language skills in pay scales, nevertheless language appears to provide a valuable supplement to other career skills--as hypothesized.

While there is much anecdotal evidence of growing demand for language skills among small business and rank and file employees, (such as hotel clerks needing fluency in the languages of the hotel's guests, trucking firms faced with shippers who have moved much of their sourcing off shore and grain silo operators

learning Russian to better sell grain to Russia), systematic data is scarce. Rodamar (1991c) finds evidence of growing demand for language skills in human services such as law enforcement and health care.

The growth of language education and translation businesses is consistent with this hypothesized growth in demand. Berlitz language learning programs hint at the size of this potential market. In 1991 Berlitz had global revenues estimated at $290 million. Between 1988 and 1990 Berlitz revenues rose 41%. Japanese produced $68 million in revenues in 1990. Clearly much of this demand comes from business rather than from vacationers preparing to work on their tan: Berlitz's strength is in its corporate accounts which account for 60% of its business. (English is the most popular language at Berlitz, accounting for over 61% of the 5 million lessons at its 284 centers around the world.) Berlitz is moving aggresively into the corporate translation business which is estimated to be a $10 bn to $20 bn. worldwide market. In another example of entrepreneurs seeing a growing market for language and translation services, ATT has purchased "the Language Line" to provide instant expert translations for needs ranging from family phone calls to 911, police and fire emergency services.

The trends in continuing education and in corporate support of employee education and training are consistent with this argument of growing demand. About 15 million Americas took non-credit nondegree courses in 1989, a 2/3 rise since 1980. American firms may soon spend more than $60 billion a year on classes for employees, approaching the total expenditures of the nation's 4 year colleges.

These patterns suggest that there is growing demand for language skills. Rather than what Lambert termed "a supply side experiement in language education", the rising levels of languge education is grounded in preferences of parents and employees and

employers as well as in statements by politicans and language education advocates.

Perhaps, we´ve only begun to see the impact of these changes in technology, politics, and economics. Lambert argues that the biggest barrier to improving language education in the US is the low priority that most Americans put on international competencies. There is much evidence of this "attitude problem". For example, while Japanese researchers flock to participate in research in the US, offers by research labs in Japan to accept US participants have found few takers. Similarly, efforts to launch business translation services to help US firms monitor new ideas and keep tabs on their international competitors find few takers. Finally, in 1982 the President of the US Chamber of Commerce estimated that there were 20,000 US companies that could be competing abroad but were not doing so. A US Assisant Secretary of Commerce said that 80% of US exporting was done by 1% of firms. This means many opportunities are missed. For example, in 1987 Japan increased imports of manufactured goods by 22%--but US producers took only 0.1% of this increase. And while, as Susan Schwab, Director General of the US Commerce Department´s small business export arm put it, "Export surpluses are created one company at a time, one transation at a time, and in one market at a time." Yet the Reagan Administration had sought to eliminate or starve the agency, and even now France has more agents d´exportation in the US than the USF&CS has world wide, and the total US export promotion effort is about equal to that of South Korea. American´s own cultural attitudes about where and how to do business are handicapping the nation.

Executive opinion may be a lagging indicator of the underlying forces at work. For example, a study of 1500 managers world wide by Columbia University and Korn Ferry International

found that 35% of US managers thought international experience was very important--while 73% of their foreign counterparts judged it important. This discrepancy--of foreign managers being more than twice as likely as US managers to think international experience is very important is reflected in career paths. Cramer (in Lambert & Moore) reports that students fluent in Japanese were more likely to find jobs with Japanese firms than with US firms which seemed to put low priority on their language skills.

While America may have "an attitude problem", things can change. For example, the British experience suggests that such attitudes can change significantly in a relatively short time. Until the early 1960´s Britain´s major trading partners were English speaking. The end of the empire and the rise of the European Community posed new challenges. By 1978 only a quarter of British exports went to English speaking nations, and Britain´s share of world exports had slipped badly. By 1983 for the first time since the Industrial Revolution, the British trade balance in manufactured goods was in deficit. A 1979 study by the British Overseas Trade Board found a significant discrepancy between views of the importance of language skills in the export industry and the views of British commercial counselors in British embassies whose job was to explore business opportunities for UK companies. The couselors believed significant opportunities were being missed through lack of expertise in foreign language, extending to failure of UK companies to even offer product brochures and correspondence in German. A new perception of need was emerging. For example, a study of firms in 1977 and again in 1984 found a 10.5% increase in foreign language use. 75% of the firms stated that the had used one or more foreign languages in recent years--and 44% indicated that they could have significantly improved their trade performance had they had access to foreign language copetencies. This is a

remarkable turnaround. (Reeves in Lambert & Moore).

Similarly, the Japanese are finding that growing international involvement requires stronger international skills. The major expansion of international exchanges called for by a high level report commissioned by Prime Minister Nakasone (and the subsequent increase) is a reflection of this. Perhaps indicative of the change in the Japanese business community is Matsushita´s "Project 100" program to import 100 foreign managers a year from its overseas subsidiaries into its Japanese offices and factories. This presence of high level managers from overseas subsidiaries has the aim of teaching those managers more about Japan. However, as the Economist put it, "But the real aim is to sock Matsushita´s rather provincial Japanese managers into learning how to deal with foreign colleagues and issues". The original proposal had been to bring 1,000 annually, but the plan was scaled down because it would have put a huge strain on the firm. Concerned about making their Japanese managers less parochial, all participants in this intracorporate exchange (including Japanese employees in Japan) are supposed to communicate in English--i.e. in a language that is foreign to Japanese managers. Honda and many other major Japanese firms are imitiating similar programs (cf. Nobuhito).

In sum, over the past decade--a time when globalization of the US economy was growing rapidly--support of policy makers, institutionalization of support for language education, and enrollments all show a supply side increase that is consistent with the arguments made in this paper. While there has been a decline in demand for US managers to be posted abroad for long periods of time, there is growing evidence that international competencies (including the ability to use foreign languages for specific purposes) are increasingly important for the careers of Americans within the United States. This is true for fields as diverse as hotel management, trucking, law enforcment, and

manufacturing.

IV. IMPLICATIONS FOR INSTRUCTION:

We have looked at how fundamental trends are reshaping demand for language skills. Let's look at seven implications for language education.

First, more people need foreign language skills. The changes that we have examined mean that institutions that in the past had little or no involvement in language instruction, international curricula, or international exchanges, find that their students need foreign language skills. For example, hotel managerment, law enforcement, nursing and other services find a significant demand for foreign language skills. This means creating or strengthening the quality of language instruction in community colleges and technical schools as well as in university classrooms.

Second, higher levels of proficiency are needed. In the emerging electronic "world office", the oral and aural and intercultural skills required in videoconferencing, phone calls, and short term inspection tours or international conference participation mean that listening and speaking skills have become at least as important as the ability to deal with written language. Moreover, increasingly language is not being studied in the abstract but rather is language for specific applications (e.g. Business Russian, Spanish for Law Enforcement). This need to put language to work poses major challenges for curricular reform and teacher training and assessment.

Third, too often America's language education is like a string of pearls--with the string broken. Despite magazine ads promising proficiency in a foreign language in a few hours or days, achieving higher levels of proficiency takes time. Elementary school language programs remain scarce and of uneven

quality. There is little articulation between language programs in our elementary, secondary, and postsecondary schools. Americans start learning languages later and stop sooner than their international counterparts. Even on university campuses language programs remain more of an innoculation than an introduction to foreign language. Lambert (1989) reports that a survey of 64 chairs of university foreign language departments reported that 71% of the students in first term foreign language courses did not continue into the second term, and only 49% continued into the third term. Only 26% continued from the 2nd year into the thrid year of college language instruction. Limited study time feeding into this "leaky pipeline" and the limited time available for language studies cap proficiency at low levels. While barriers to effective integration of language education are substantial on campus (Rodamar, 1991a, 1991c), and are even greater among institutions, progress must be made toward increasing the period over which language is studied and augmenting the coherence of this instruction.

Fourth, although we live in the age of the electronic "world office", our classrooms remain in the era of the clipper ship where the most immediate contact with speakers of foreign languages are books, travel posters, and the blackboard. Education technology--including distance learning, computer assisted instruction, video games, VCRS, electronic mail, phones, and so on--promise a "world classroom" that brings authentic, contextualized language experiences into the classroom, and that allows students to play and practice language skills when they find the opportunity. Already, interesting programs are available. For example, the "Language Lab of the Future" project at MIT developed several computer simulations, including searching for an apartment in Paris, that help contextualize language learning and help make it interesting. There are exciting--but isolated--examples of the use of telecommunications

to effectively bring international experience into the classroom. The technology is largely available--now the task is to make this available to educators, to augment and improve the language education materials available, to identify and disseminate effective ways to integrate these technologies into language instruction, and to train teachers in their use. Again, resources as well as vision and know how will be vital in bringing the world to the classroom.

Fifth, direct contact with foreign cultures is vital in building true proficiency. Yet fewer than 1% of US undergraduates study abroad, with 75% of them going to just 5 European countries. More effective utilization of internships, international exchanges, and of foreign students and faculty on campus can help provide these contacts. For example, the effectiveness of foreign students as language teachers is limited because they generally lack training in language education pedagogy--but they can play highly effective roles as teacher assistants, tutors, classroom contributors, and so on in providing student contact with native speakers.

Sixth, curricular reforms are needed to provide the foundation and to sustain these other changes. Lambert (1989) reports that of 10,467 courses analyzed as described in course catalog, none except foreign language classes had prior foreign language requirements--and this is despite the fact that 77% of the four year institutions and 46% of the two year institions had made some recognition of the importance of international studies in their general education requirements--despite fact that transcript study for academic 1986 found that 69% of the graduates had taken some international courses (rising to 84% in baccalaureate institutions). Given time and resource constraints, more effective integration of global competency training across departments is needed. "Language across the curriculum" is one option to reinforce language education by

strengthening its links to courses dealing with other fields in international settings. For example, foreign language readings may be included in a syllabus, and foreign language discussion or study groups can provide students with opportunities to practice language skills. These initiatives are not without risks: careful planning, implementation, and monitoring is needed for innovation in these areas (cf. Rodamar 1991a,b).

Seventh, if you do not use language skills, you lose them. (cf. Lambert and Freed). A "language infrastructure" that provides access to opportunities to sustain and further develop foreign language skills are needed once a student leaves campus. In both public and private sectors appear to be in demand and under rewarded. For example, as the US prepared to launch "Operation Desert Storm" against Iraq, the US Department of Defense was able to identify only 45 US military personnel with any Iraqui language background--and only five of them had been trained in intelligence activities. While the Department of Defense spends millions of dollars to train staff in foreign language skills, proficiency payments that recognize these skills in pay levels are capped at $100 per month. Similarly, law enforcement and health care (cf. Rodamar) and business (cf. Fixman) report significant need and low reward. There is a long term need to formally increase recognition of language skills in pay scales and career ladders.

The language infrastructure must also be strengthened. In most major world cities you can find foreign language materials on virtually any newsstand. In contrast, in vast parts of the US, finding a foreign magazine, foreign language book, or foreign language film is a major project--often entailing time consuming special ordering from distant sources. In most areas there are few networks dedicated to providing opportunities to practice foreign language skills. And the increasing concentration and focus on high profit films with broad audiences is making it

difficult for foreign films to even find their way into the United States.

Campuses must play a major role in providing the language infrastructure necessary to sustain and develop foreign language skills. Libraries and the campus community should play a major role in providing access to foreign language and international materials to the broad public. While many campuses continue to give low priority to non-degree students, short term, nondegree programs to sustain and develop language and international skills for teachers, businessmen and others in the broad second language community should be a core function of the university community. They also provide a potentially important way to augment links to the broader community to build financial and other support for the university at a time when there is a decline of the number of students in the traditional "collage age" cohort. For example, some business schools have found executive seminars of relatively short duration help executives stay up to date with needs. Community colleges serve continuing education needs effectively for many students, particularly in vocational areas. Professional conferences also provide professionals opportunities to develop and sustain skills. It is important that language programs--perhaps spearheaded by leading institutions and professional associations--work to strengthen the availability of foreign language materials and of opportunities to participate in short term, non-degree courses, and conferences that hone language skills.

Education technology is part of the solution. Technology means that not only can there be a "linkup for learning" that brings outside resources into the classroom, but also that increasingly educational resources (both formal and informal) are available outside the classroom. As the National Technological University (NTU) has demonstrated with its satellite broadcast of highly technical courses to engineers, scientists, and managers

in worksites at leading corporations across the nation, technology can effectively bring learning resources to where the student is. By and large language education has not yet come to terms with this "classroom without walls". Theory and pedagogy are only slowly catching up with these developments. Too often students have computers that can handle highly complex programs in their brief cases or in their dorms, but they are faced with language programs that expect them to travel to the language laboratory and utlize resources at that single site. Effective research, development and assessment of programs to incorporate these resources into language instruction are needed. This involves not only how to use educational technology in the classroom, but also how to more effectively put it to work outside the classroom.

Finally, broader policy initiatives are vital in supporting these changes. Development of quality assessment programs, strengthening teacher training, support for bringing educational technology are all elements for which professional associations, foundations, and public policies can play a vital role.

CONCLUSION:

The American prospect depends on a wide array of skills. The average executive will not be fluent in six languages, and the average grain silo operator may not need to be fluent in Russian and Chinese. Nevertheless, fundamental, irreversible changes in technology, economic organization, political power, and preferences are altering the structure of demand for foreign language and international competencies. The need for language proficiency as a work skill has moved from the apex of our organizations to include a wide range of jobs within organizations. The local pace varies, and events and choices may

speed up or delay the trend, but the direction is clear.

Adapting language instruction to meet these opportunities requires significant changes in the way languages are taught and in their linkage to the broader educational enterprise. The work necessary to meet these challenges has only just begun.

Bibliography

Adams, Eric J. "Videoconferencing Comes of Age", World Trade, November 1991 pp. 74-78.

Allen, Diane. "Seeing English in a New Light: As World Language" The Council Chronicle, The National Council of Teachers of English vol 1 no. 1, Sept. 1991, pp. 1,5.

Bello, Mark. "Manufacturers Must build on 'World-Class foundations" National Academy of Sciences News Report, Aug-Sept. 1991 p. 19-21.

Borrus, Amy and John Carey. "An Open Door the U.S. Isn't Using: Why Are There So Few American Researchers in Japan's Labs?" Business Week, May 15, 1989, pp. 59-62.

Burgess, John. "AT&T, Japanese Firm to Lay High Capacity Pacific Cable" Washington Post, Oct. 18, 1990, pp. D 1;5.

Burgess, John. "The Battle for Long-Distance Dollars: AT&T and Competitors Fight for Share as Global Market Explodes" Washington Post, Dec. 27, 1988, pp. A1,A6-7.

Cazden, Courtney B. and Catherine E. Snow, Special editors, "English Plus: Issues in Bilingual Education". The Annals of the American Academy of Political and Social Science. Vol 508, March 1990.

Chandler, Clay. "US Industry Cool to Tracking Japan's High Tech Publications" Washington Post. Sept. 8, 1989, p. D1.

College Board, Profile of SAT and Achievement Test Takers, 1987-1991.

"Congress Approves Program To Support Overseas Study", Chronicle of Higher Education, December 4, 1991, pp. A53;55.

D'Arms, John H. "Foreign Students, International Studies and the Internationalization of the University". Rackham Review. Horace H. Rackham School of Graduate Studies, The University of Michigan, Ann Arbor, Michigan 1987-88, pp. 1-19.

Deutsch, Karl W. Nationalism and Social Communication: An Inquiry Into the Foundations of Nationality. Cambridge, M.A.: MIT Press, 2nd edition, 1966.

Dion, Stephane. "Will Quebec Secede? Why Quebec Nationalism Is So Strong", The Brookings Review, Fall 1991, vol 9 no. 4, pp. 14-21.

Dopfner, Mathias. "The German Language Waits Hopefully in the Wings" German Tribune, 21 July 1991 No. 1476, p. 6-7. (Originally printed in Frankfurter Allgemeine Zeitung, July 8, 1991).

Draper, Jamie B. The State of the States: State Initiatives in Foreign Languages and International Studies, 1979-1989. Joint National Committee for Languages in Cooperationwith National Council of State Supervisers of Foreign Languages. Dec. 1989.

Dumaire, Briar. "How Managers Can Succeed Through Speed" Fortune Feb 13, 1989 pp. 54-59.

Dutcher, Anne. "Tokyo to the U.S. Via M.C.I." IN: Irformation Age vol 2 no 4 winter 1989, pp. 12-14.

"English, A Linguistic Success Story" New York Times, July 16, 1990.

English Plus (EPIC) "English-Only" Legislation in a Multicultural America Washington, D.C. June 1990.

"Exporting is a call away" Family Business. Oct. 1990, p. 13.

Fixman, Carol S. "The Foreign Language Needs of US Based Corporations". National Foreign Language Center, Johns Hopkins University, May 1989.

Flanigan, James. "Heavy Losses Mask GM's Global Potenial" LA Times Nov. 4, 1990 pp. D1,D7.

Fowler, Elizabeth M. "Careers: Managers Lack Fluency in Languages", New York Times, July 11, 1991.

Fowler, Elizabeth M. "Europeans Seek MBA Candidates" New York Times, Nov. 7, 1989.

"The Glamour of Gaijins" The Economist, Sept. 21, 1991, p. 80.

Glazer, Nathan. "The Fullbright Experience and Academic Exchanges" special issue of The Annals of the American Academy of Political and Social Science. Beverly Hills, CA: Sage Publications. May 1987.

Glover, M. Katherine "Do's and Taboos: Cultural Aspects of International Business" International Trade Administration: Business America, Aug 13, 1990 p. 2-6.

"Governing Guide: Telecommunications Infrastructure for Ideas", Special section of Governing the States and Localities. Sept. 1990 pp. 1A-22A.

Greenhouse, Steven. "For Europe, U.S. May Spell TV". New York Times, July 31, 1989 IV 1;3.

Hagen, Stephen. Language in British Business: An analysis of Current Needs. Newcastle Upon Tyne: Newcastle Upon Tyne Products in Association with Centre for Information on Language Teaching and Research, 1988.

Heyneman, Stephen P. "Education on the World Market". American School Board Journal, March 1990, pp. 28-30.

Hoffman, David. "World Communications Network Was Pivotal in Defeat of Junta". Washington Post, Aug. 23, 1991 p. A27.

Inglehart, Ronald. The Silent Revolution: Changing Values and Political Styles Among Western Publics. Princeton: Princeton University Press 1977.

Janowski, Pat. "Foreign Language Translation Made Easier with Computers" News Report. U.S. National Research Council, vol. XXX, No. 2 Feb 1990 pp. 15-16.

Keohane, Robert O. and Joseph S. Nye. Power and Interdependence: World Politics in Transition. Boston: Little, Brown, 1977.

Korbin, Stephen J. International Expertise in American Business: How to Learn to Play With the Kids on the Street. Institute for International Education. New York, NY 1984.

Lambert, Richard D. International Studies and the Undergraduate. American Council on Education, Washington, D.C. 1989

Lambert, Richard D. and Freed, B.F. (eds.) The Loss of Language Skills. Rowley, MA: Newbury House.

Lambert, Richard D. and Sarah Jane Moore, Special editors: "Foreign Language in the Workplace", The Annals of the American Academy of Political and Social Science, Sept. 1990.

"The Last Gasp of Mass Media?" Forbes Sept. 17, 1990, pp. 176-182.

Liston, David and Nigel Reeves. Business Studies, Languages, and Overseas Trade. London: Pitman Institute of Export 1985,86.

"Lingua franca, lingua dolorosa: Canny Countries Keep Their Languages to Themselves. The Economist. August 24, 1991, p. 16.

Lubove, Seth. "Ovo je line extension" Forbes July 22, 1991 pp. 64-65.

Markoff, John. "Scientists Share Data at Speed of Light" New York Times, June 4, 1989, pp. IV 6;1.

Matthews, Jay. "US Mass Media Building Bridges to Bilingualism. Washington Post, January 3, 1989.

McConville, Daniel J. "Kick Starting Commerce", World Trade, Dec. 1991, pp. 71-75.

Naisbett, John. Interview in Success, March 1990, p. 43.

Neal, Pat W. "A Case in Point: Four Realators in Garden Grove Prove Multiculturalism and Real Estate Do Mix", California Real Estate, Sept. 1991 pp. 70-73.

Nichols, Peter M. Home Video: Offering Foreign Films: With the Art Houses Going or Gone, Video Is Picking Up the Slack", New York Times, September 12, 1991.

Nobuhito Kishi. "Themes in US-Japanese Relations: Diaganosing Auto Industry Frictions and Finding Cures" By the Way, Nov. 1991, pp. 16-21.

Payer, Lynn. Medicine and Culture. N.Y.: Holt, 1988.

Pearson, Michael. "Languages in a Multinational Company", Linquist. 28 (5) 1989, pp. 146-47.

Quinn, Lawrence Richter. Banking on World Trade, Hedges and Options and Futures! Oh, My!" World Trade, Oct. 91 p. 56-62.

Reich, Robert B. The Work of Nations, N.Y.: A.A. Knopf 1991.

Reid, T.R. "Whose World View? Foreign Films Don't Play to U.S. Audiences", Washington Post, Nov. 11, 1991, p. G1;11.

Riddle, Wayne C. "Foreign Language and International Education: The Federal Role". Congressional Research Service, Nov. 20, 1989 89-657 EPW.

Rodamar, Daniele. "Foreign Language and Human Services" (submitted for publication), 1991.

Rodamar, Daniele. "The Need for a National Assessment of Educational Progress in Foreign Language Competence", written testimony for Hearing on Testing and Education, Subcommittee on Elementary, Secondary and Vocational Ed, U.S. Congress June 7, 1990.

Rodamar, Daniele. "Transcending Boundaries: The Role of Language Skills for Entrepreneurs in the Internationalization of Entrepreneurship Education, Training and Research". Proceedings of the International Conference on International Entrepreneurship, Education, Traning, and Research, Cambridge University, Cambridge England July 1-5, 1991.

Rosentiel, Thomas B. "The Selling of US Media: Have Foreign Buys Gone Too Far?" Los Angeles Times, 4 Nov. 1990, p. D1.

"Same News, Different Views" Hispanic Buinsess, Jan. 1989, p. 40.

Shine, Jerry. "More U.S. Students Tackle Japanese" Christian Science Monitor Nov. 25, 1991, p. 14.

Simon, Paul. The Tongue-Tied American. New York: Continental Publishing Co. 1980.

Sims, Calvin. "AT&T To Expand Service for Language Translations" New York Times Feb. 15, 1990, p. D1.

Sims, Calvin. "Long Distance Rate Drop Brings a Surge in Calling" New York Times, May 22, 1990, p. D1.

Solomon, Jolie. "Firms Grapple with Language Barriers" Wall Street Journal, Nov. 7, 1989 pp. B1;3

"The Stateless Corporation" Business Week, May 14, 1990, pp. 98-106.

Stevenson, Richard W. "Hollywood Takes to the Global Stage" New York Times, April 16, 1989, Sec. 3 pp. 1,8.

Strugatch, Warren. "Job Search: Wanted: Recent Grad, No Intl. Exp., English Only." World Trade, Oct 91, p. 14.

"A Surge in Japanese Travel is Cutting Tokyo's Trade Surplus" New York Times, Dec. 22, 1989, pp. A1, D3.

"Telecommunications", Special survey section, Economist Oct. 5, 1991.

Tilly, Charles (ed.) The Formation of National States in Western Europe. Princeton: Princeton University Press 1975.

Tolchin, Martin and Susan. Buying Into America: How Foreign Money is Changing the Face of Our Nation. Times Books, 1987.

"Translate Thine Enemy" The Economist May 20, 1989, p. 92.

Troiano, Peter. "'How do I get this Package to Japan/America on Time? Some Answer this question with Unistar Air Cargo, a new trans-Pacific freight forwarder," Economic World, Oct 1991, pp. 16-17.

U.S. Congress, House/Senate International Education Study Group, "DOD Stresses Need for Language Proficiency", International Notes, Vol. 1 No. 2, September 1991.

U.S. Department of Education, National Center for Education

Statistics: Digest of Education Statistics, 1989.

Van Gelder, Linsy. "Trading Tongues: Where the Multilingual Mingle." Compuserve Magazine, September 1991, p. 40-41.

"What Nationality Means to the Fine Art of Healing: Medicine's Case of Cultural Myopia" U.S. News and World Report, Dec. 26, 1989-Jan. 2, 1990.

"Who are the Copy Cats Now?" Economist May 20, 1989 pp. 91-93.

World Bank, World Development Report 1984, 1989, 1990.

Wrotnoski, Cort. "International Biotechnology: A World of Markets, A World of Languages," Genetic Engineering News, vol 10 no. 8 Sept. 1990, p. 1